Data Sheet (Cat.No.T76464)

TargetMol

FITC-β-Ala-Amyloid β-Protein (1-42) (ammonium)

Chemical Properties

CAS No. :

Formula: C227H330N58O66S2

Molecular Weight: 4991.53

Storage: Keep away from moisture,Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	FITC-β-Ala-Amyloid β-Protein (1-42) (ammonium) is a fluorescein isothiocyanate (FITC)-tagged monomeric peptide of amyloid beta 1-42, which plays a critical role in the pathogenesis of Alzheimer's disease, making FITC-β-Ala-Amyloid β-Protein (1-42) (ammonium) a valuable tool for mechanistic studies, drug screening, and biomolecular investigations related to neurodegenerative processes.
Targets(IC50)	Beta Amyloid
In vitro	β-Amyloid aggregation protocol (recommended procedure, adjust according to downstream applications). Monomer preparation: 1. Dissolve solid Aβpeptide in ice-cold hexafluoro-2-propanol (HFIP). Incubate the peptide solution at room temperature (RT)for at least 1 h to ensure complete monomerization and conformational randomization. 2. Obliterate HFIP under vacuum. Store the resulting peptide film at –20 °Cor –80 °C. Oligomer preparation: 3. Add anhydrous DMSO to the peptide film to prepare a 5 mM stock solution; mix thoroughly by vortexing. Dilute to the desired concentration with ice-cold PBS or serum-free, phenol-red-free DMEM/F12. 4. Incubate the diluted solution at 4–8 °Cfor 24–48 h. Then centrifuge at 4–8 °C and 14,000 × g for 10 min; soluble oligomers are in the supernatant. Dilute the supernatant 10–200×immediately before use. Fibril preparation: 5. Add anhydrous DMSO to the peptide film to prepare a 5 mM stock solution; vortex to mix. Dilute to the required concentration with 10 mM HCl. 6. Incubate the diluted solution at 37 °Cfor 24–48 h to obtain Aβ42 fibrils. Notes: If insoluble material is present after step 1, extend HFIP treatment (e.g., overnight incubation), vortex, or apply brief sonication; if residues persist, remove by centrifugation or filtration. Different aggregated forms of Aβ are solution-labile; prepare fresh whenever possible. For longer-term storage, keep the peptide as a film at –20 °C or –80 °C.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2003 mL	1.0017 mL	2.0034 mL
5 mM	0.0401 mL	0.2003 mL	0.4007 mL
10 mM	0.020 mL	0.1002 mL	0.2003 mL
50 mM	0.004 mL	0.020 mL	0.0401 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Joseph Schober, et al. NNC 26-9100 increases Aβ1-42 phagocytosis, inhibits nitric oxide production and decreases calcium in BV2 microglia cells. PLoS One. 2021 Jul 8;16(7):e0254242.